

HIGH THROUGHPUT SCREENING OF CRYSTALLIZATION OF MATERIALS

ABSTRACT OF THE DISCLOSURE

High throughput screening of crystallization of a target material is accomplished by simultaneously introducing a solution of the target material into a plurality of chambers of a microfabricated fluidic device. The microfabricated fluidic device is then manipulated to vary the solution condition in the chambers, thereby simultaneously providing a large number of crystallization environments. Control over changed solution conditions may result from a variety of techniques, including but not limited to metering volumes of crystallizing agent into the chamber by volume exclusion, by entrapment of volumes of crystallizing agent determined by the dimensions of the microfabricated structure, or by cross-channel injection of sample and crystallizing agent into an array of junctions defined by intersecting orthogonal flow channels.

PA 3146130 v1